



REVISION CHECKLIST for IGCSE Information and Communication Technology 0417

A guide for students

How to use this guide

This guide describes what you need to know about your IGCSE Information and Communication Technology examination.

It will help you plan your revision programme for the written and practical examinations. It can also be used to help you revise by using the tick boxes in Section 3, 'What you need to know', to check what you know and which topic areas you have covered.

The guide contains the following sections:

Section 1 - How will you be tested?

This section will give you information about the different types of examination Papers that are available.

Section 2 - What will be tested?

This section describes the areas of knowledge, understanding and skills that the Examiners will test you on.

Section 3 - What you need to know

This shows the syllabus content in a simple way so that you can check:

- what you need to know about each topic
- how much of the syllabus you have covered

Section 1 - How will you be tested?

1.1 The examination papers you will take

You will take **three** papers. Paper one is a theory paper and papers two and three test your practical skills.

1.2 About the papers

This table gives you information on the papers. It is important to answer all the questions during the examination.

<i>Paper number</i>	<i>How long?</i>	<i>What's in the paper?</i>	<i>What's the %of the total examination?</i>
Paper 1 (Theory)	2 hours	The paper will contain mainly questions requiring a short response, a word, a phrase or one or two sentences, although there will be some questions requiring a more extended response. The questions will test sections 1 - 8 of the curriculum content.	40%
Paper 2 (practical)	2 ½ hours	A practical test assessing skills in sections 9 - 16 of the curriculum content.	30%
Paper 3 (practical)	2 ½ hours	A practical test assessing skills in sections 9 - 16 of the curriculum content.	30%

You must answer all questions. There are no optional sections.

Section 2 - What will be tested?

The full syllabus, which your teacher will have, lists the assessment objectives in detail. However, you should note that in the theory examination you will be tested on your knowledge of:

- 1 Components of a Computer System
- 2 Input and Output Devices
- 3 Storage Devices and Media
- 4 Computer Networks
- 5 Data Types
- 6 The Effects of Using IT
- 7 The ways in which IT is used
- 8 Systems Analysis and Design

In the practical tests you will need to demonstrate your ICT skills in the following application areas:

- 9 Communication
- 10 Document Production
- 11 Data Manipulation
- 12 Integration
- 13 Output Data
- 14 Data Analysis
- 15 Website Authoring
- 16 Presentation Authoring

You should ask your teacher if you require more detailed information on this section.

During your course, your teacher will probably give you many opportunities to practise your practical skills while researching, recording or presenting your knowledge of the theory components. You may well also be using your practical skills in other areas of your learning or life outside school / college.

Section 3: What you need to know

Theory

The curriculum content for theory is set out in eight interrelated sections.

You should be familiar not only with the types of software available and the range of Information and Communication Technology knowledge and skills detailed below, but also with their uses in practical contexts. Examples of such uses are given in each section of the subject content.

Note that you will not get any marks for using brand names of software packages or hardware.

SECTION 1		
Components of a Computer System		
You should be able to:		I can do this (tick the ones you can do)
a)	define hardware, giving examples;	
b)	define software, giving examples;	
c)	describe the difference between hardware and software;	
d)	identify the main components of a general-purpose computer: <ul style="list-style-type: none">• central processing unit• main/internal memory (including ROM and RAM)• input devices• output devices and• secondary/backing storage	
e)	identify operating systems, including <ul style="list-style-type: none">• Graphic User Interface• command line interface	

SECTION 2		
Input and Output Devices		
You should be able to:		I can identify these devices
a)	identify the following input devices: <ul style="list-style-type: none"> • keyboards, • numeric keypads, • pointing devices(including mouse, touch pad and tracker ball), • remote controls, • joysticks, • touch screens • magnetic stripe readers, • chip readers, • PIN pads, • scanners, • digital cameras, • microphones, • sensors, • graphics tablet, • MICR, • OMR, • OCR, • barcode readers, • video cameras, • web cams, • light pens 	Tick the ones you know <div></div>
b)	identify suitable uses of the input devices stating the advantages and disadvantages of each;	
Device	Use	I know how this device is used and its advantages / disadvantages
Keyboard	Entering text into a word processing document. Applications where text has to be created rather than copied.	
Numeric keypad	Applications where only numeric data is to be entered. Inserting pin numbers for chip and pin credit/debit cards, or when using an ATM machine to withdraw money or check a bank balance.	

Pointing devices all	Applications which require selection from a graphics user interface. For example: the selection of data from a predefined list or menu.	
Mouse	In most PCs	
Touchpad	On Laptop computers	
Trackerball	For use by people with limited motor skills e.g. young children or people with disabilities	
Remote control	Using remote control devices to operate TVs, video players/recorders, DVD players/recorders, satellite receivers, HiFi music systems, data or multimedia projectors	
Joystick	Used by a pilot to fly an aeroplane or flight simulator. Used in car driving simulators and for playing games.	
Touch screen	Selecting from a limited list of options e.g. certain POS uses such as cafes, tourist information kiosks, public transport enquiries.	
Magnetic stripe readers	At POS terminals, ATMs and in security applications	
Chip readers	At ATMs to obtain cash and in retail stores for bill payments	
PIN pad	At ATMs to obtain cash and in retail stores for bill payments	
Scanners	Entering hard copy images into a computer	
Digital cameras	Taking photographs for input to computers, for input to Photo printers	
Microphones	Recording of voices for presentation software	
Sensors (general)	In Control (see 7.1d) and measuring applications (see 7.1c)	
Temperature sensor	Automatic washing machines, automatic cookers, air conditioning controllers, central heating controllers, computer-controlled greenhouses, scientific experiments and environmental monitoring	
Pressure sensor	Burglar alarms, automatic washing machines, robotics, production line control, scientific experiments and environmental monitoring	

Light sensor	Computer controlled greenhouses, burglar alarm systems, robotics, production line control, scientific experiments and environmental monitoring	
Graphics tablet	To input freehand drawings or retouch photographs	
Magnet Ink Character Reader	To input magnetic characters, such as those found on bank cheques	
Optical Mark Reader	To input pencil marks on a form such as a school register, candidate exam answers, any application involving input of a choice of options	
Optical Character Reader	To input text to a computer ready for processing by another software package such as word processors, spreadsheets, databases etc.	
Bar code Reader	To input code numbers from products at a POS terminal, library books and membership numbers	
Video camera	To input moving pictures, often pre-recorded, into a computer	
Web cam	To input moving pictures from a fixed position into a computer	
Light pen	Where desktop space is limited, it is used instead of a mouse or for drawing applications where a graphics tablet might be too big	

		I can identify these devices
c)	identify the following output devices: <ul style="list-style-type: none"> • monitors (CRT, TFT), • projectors, • printers (laser, ink jet and dot matrix), • plotters, • speakers, • control devices – • motors, • buzzers, • lights, • heaters 	Tick the ones you know

d)	identify suitable uses of the output devices stating the advantages and disadvantages of each.		
Device	Use	I know how this device is used and its advantages / disadvantages	
CRT monitor	Applications where space is not a problem. Applications where more than one user may need to view screen simultaneously such as in design use, e.g. when several designers may need to offer suggestions on a prototype.		
TFT monitor	Applications where space is limited such as small offices. Applications where only one person needs to view the screen such as individual workstations.		
Multimedia Projector	Applications such as training presentations, advertising presentations and home cinema. It displays data from computers, pictures from televisions and video/DVD recorders.		
Laser printer	Applications which require low noise and low chemical emissions, e.g. most networked systems. Applications which require rapid, high quality and high volumes of output, e.g. most offices and schools.		
Inkjet printer	Applications which require portability and low volume output where changing cartridges is not an issue. e.g. small offices and stand alone systems. Applications which require very high quality output and where speed is not an issue, e.g. digital camera applications.		
Dot matrix printer	Applications where noise is not an issue and copies have to be made, e.g. industrial environments (multipart forms, continuous stationery, labels etc.). Car sales and repair companies. Manufacturing sites.		
Graph plotter	CAD applications, particularly where large printouts are required such as A0		

Speakers	Any application which requires sound to be output such as multimedia presentations/web sites including encyclopaedias. Applications that require musical output such as playing of musical CDs and DVD films.	
Control devices	In Control applications (see 7.1d)	
Motors	Automatic washing machines, automatic cookers, air conditioning units, central heating controllers, computer-controlled greenhouses, microwave ovens, robotics, production line control	
Buzzers	Automatic cookers, microwave ovens	
Heaters	Automatic washing machines, automatic cookers, air conditioning units, central heating controllers, computer-controlled greenhouses	
Lights/lamps	Computer-controlled greenhouses	

SECTION 3		
Storage Devices and Media		
You should be able to:		
a)	describe common backing storage media including:	I can describe these
	<ul style="list-style-type: none"> • magnetic tapes, • CD ROMs, • CD Rs, • CD RWs, • DVD ROMs, • DVD Rs, • DVD RWs, • floppy discs and hard discs, • Zip discs, • memory sticks, • flash memory and their associated devices; 	
b)	identify typical uses of the storage media, including types of access (e.g. serial/sequential, direct/random) and access speeds;	
Media	Use	I know how these media are used
Magnetic backing storage Media		
Floppy discs	Any use where small files such as word processing, small spreadsheets and databases need to be moved from one computer to another. Useful to backup small data files.	

Fixed hard discs	Used to store operating systems, software and working data. Any application which requires very fast access to data for both reading and writing to. Not for applications which need portability. Used for on-line and real time processes requiring direct access. Used in file servers for computer networks.	
Portable hard discs	Used to store very large files which need transporting from one computer to another and price is not an issue. More expensive than other forms of removable media.	
Magnetic tapes	Any application which requires extremely large storage capacity where speed of access is not an issue. Uses serial access for reading and writing. Used for backups of file servers for computer networks. Used in a variety of batch processing applications such as reading of bank cheques, payroll processing and general stock control.	
Optical backing storage media such as CDs and DVDs	CDs tend to be used for large files (but smaller than 1Gb) which are too big for a floppy disc to hold such as music and general animation. DVDs are used to hold very large files (several Gb) such as movie films. Both CDs and DVDs are portable i.e. they can be transported from one computer to another. Both can be used to store computer data.	
CD ROM/DVD ROM	Applications which require the prevention of deletion of data, accidental or otherwise. CDs used by software companies for distributing software programs and data; by Music companies for distributing music albums and by book publishers for distributing encyclopaedias, reference books etc. DVDs used by film distributors.	
CD R/DVD R	Applications which require a single 'burning' of data, e.g. CDs - recording of music downloads from the Internet, recording of music from MP3 format, recording of data for archiving or backup purposes. DVDs – recording of film movies and television programs.	
CD RW/DVD RW	Applications which require the updating of information and ability to record over old data. Not suitable for music recording but is very	

	useful for keeping generations of files. DVDs have between five and ten times the capacity of CDs.	
Solid state backing storage	Smallest form of memory, used as removable storage. More robust than other forms of storage. More expensive than other forms but can be easily written to and updated.	
Memory sticks/Pen drives	Can store up to many Gb. Used to transport files and backup data from computer to computer.	
Flash memory cards	Used in digital cameras, palmtops, mobile phones, MP3 players	
c)	describe the comparative advantages and disadvantages of using different backing storage media;	
d)	define the term backup and describe the need for taking backups;	
e)	describe the difference between main/internal memory and backing storage, stating the relative benefits of each in terms of speed and permanence.	

	SECTION 4	
	Networks	
You should be able to:		I can do this
a)	describe a modem and its purpose;	
b)	state the difference between analogue data and digital data;	
c)	explain the need for conversion between analogue and digital data;	
d)	identify the advantages and disadvantages of using common network environments such as the Internet;	
e)	describe what is meant by the terms user id and password, stating their purpose and use;	
f)	identify a variety of methods of communication such as <ul style="list-style-type: none"> • fax, • e-mail, • bulletin boards, and • tele/video conferencing; 	
g)	define the terms <ul style="list-style-type: none"> • Local Area Network (LAN), • Wireless Local Area Network and • Wide Area Network (WAN); 	
h)	describe the difference between LANs, WLANs and WANs, identifying their main characteristics;	
i)	identify the different network topologies including <ul style="list-style-type: none"> • star, • ring, • bus and • hybrid; 	
j)	describe the characteristics and purpose of common network environments, such as intranets and the Internet;	

k)	describe common network devices including <ul style="list-style-type: none"> • hubs, • routers, • bridges, • switches and • proxy servers 	
l)	discuss the problems of confidentiality and security of data, including problems surrounding common network environments;	

	SECTION 5	
	Data Types	
You should be able to:		I can do this
a)	identify different data types: <ul style="list-style-type: none"> • logical/Boolean, • alphanumeric/text, • numeric (real and integer) and • date; 	
b)	select appropriate data types for a given set of data: <ul style="list-style-type: none"> • logical/Boolean, • alphanumeric/text, • numeric and • date; 	
c)	describe what is meant by the terms <ul style="list-style-type: none"> • file, • record, • field and • key field. 	

	SECTION 6	
	The Effects of Using IT	
You should be able to:		I can do this
a)	explain what is meant by software copyright;	
b)	describe what hacking is;	
c)	describe what a computer virus is;	
d)	explain the measures that must be taken in order to protect against hacking and viruses;	
e)	describe the effects of information and communication technology on patterns of employment, including areas of work where there is increased unemployment;	
f)	describe the effects of microprocessor-controlled devices in the home, including their effects on leisure time, social interaction and the need to leave the home;	
g)	describe the capabilities and limitations of IT;	
h)	discuss issues relating to information found on the Internet, including unreliability, undesirability and the security of data transfer;	
i)	describe the potential health problems related to the prolonged use of ICT equipment, for example repetitive strain injury (RSI), back problems, eye problems and some simple strategies for preventing these problems;	
j)	describe a range of safety issues related to using computers and measures for preventing accidents.	

SECTION 7		
The ways in which IT is used		
7.1	You should have an understanding of a range of IT applications in their everyday life and be aware of the impact of IT in terms of:	I know about this
a)	communicating applications e.g. <ul style="list-style-type: none"> • newsletters, • websites, • multimedia presentations, • music scores, • cartoons, • flyers and • posters; 	
b)	data handling applications e.g. <ul style="list-style-type: none"> • surveys, • address lists, • tuck shop records, • clubs and society records, • school reports and • school libraries; 	
c)	measurement applications e.g. <ul style="list-style-type: none"> • scientific experiments, • electronic timing and • environmental monitoring; 	

d)	control applications e.g. <ul style="list-style-type: none"> • turtle graphics, • control of lights, • buzzers and motors, • automatic washing machines, • automatic cookers, • central heating controllers, • burglar alarms, • video recorders/players, • microwave ovens and • computer controlled greenhouse; 	
e)	modelling applications e.g. <ul style="list-style-type: none"> • 3D modelling, • simulation (e.g. flight or driving) • use of spreadsheets for personal finance and tuck shop finances. 	
7.2	You should understand the differences between <ul style="list-style-type: none"> • batch processing, • on-line processing and • real-time processing. You should have an understanding of a wider range of work-related IT applications and their effects, including:	I know about this
a)	communication applications e.g. <ul style="list-style-type: none"> • the Internet, • electronic mail, • fax, • electronic conferencing • mobile telephones; 	
b)	applications for publicity and corporate image publications e.g. <ul style="list-style-type: none"> • business cards, • letterheads, • flyers • brochures; 	
c)	applications in manufacturing industries e.g. <ul style="list-style-type: none"> • robotics in manufacture • production line control; 	

d)	applications for finance departments e.g. <ul style="list-style-type: none"> • billing systems, • stock control • payroll; 	
e)	school management systems including <ul style="list-style-type: none"> • registration, • records and • reports; 	
f)	booking systems in the <ul style="list-style-type: none"> • travel industry, • the theatre • cinemas; 	
g)	applications in banking including <ul style="list-style-type: none"> • Electronic Funds Transfer (EFT), • ATMs for cash withdrawals and bill paying, • credit/debit cards, • cheque clearing, • phone banking, • Internet banking; 	
h)	applications in medicine including <ul style="list-style-type: none"> • doctors' information systems, • hospital and pharmacy records, • monitoring • expert systems for diagnosis; 	
i)	applications in libraries e.g. <ul style="list-style-type: none"> • records of books and • borrowers and • the issue of books; 	
j)	the use of expert systems e.g. <ul style="list-style-type: none"> • in mineral prospecting, • car engine fault diagnosis, • medical diagnosis, • chess games; 	

k)	applications in the retail industry <ul style="list-style-type: none">• stock control,• POS,• EFTPOS,• internet shopping,• automatic reordering.	
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SECTION 8		
Systems Analysis and Design		
8.1 Analysis		
You should be able to:		I can do this
a)	describe different methods of researching a situation e.g. <ul style="list-style-type: none"> • observation, • interviews, • questionnaires • examination of existing documentation; 	
b)	state the need for establishing the <ul style="list-style-type: none"> • inputs, • outputs and • processing in both the existing system and the proposed system;	
c)	state the need for recording information about the current system;	
d)	state the need for identifying problems with the current system;	
e)	state the need for identifying suitable hardware and software for developing a new system;	
f)	state the need for identifying the user and information requirements necessary to resolve the identified problems;	
g)	state the need for specifying the required hardware and software.	
8.2 Design		
You should be able to:		I can do this
a)	state the need for producing designs for documents, files, forms/inputs, reports/outputs and validation;	
b)	design data capture forms and screen layouts to solve a given problem;	
c)	design reports layouts and screen displays to solve a given problem;	
d)	design validation routines to solve a given problem;	
e)	design the required data/file structures to solve a given problem.	

8.3 Implementation		
You should be able to:		I can do this
a)	identify the different methods of system implementation e.g. <ul style="list-style-type: none"> • parallel running, • phased implementation, • direct changeover; 	
b)	identify suitable situations for the use of the methods in a), giving advantages and disadvantages of each;	
c)	describe testing strategies that would be employed in implementing the new system (such as the use of <ul style="list-style-type: none"> • normal, • abnormal and • extreme data • as well as the use of test data and real/live data); 	
d)	identify improvements that could be needed as a result of testing.	
8.4 Verification		
You should be able to:		I can do this
a)	identify the need for, and the different methods of, verification when entering data.	
8.5 Documentation		
You should be able to:		I can do this
a)	identify the components of technical documentation for an information system e.g. <ul style="list-style-type: none"> • program coding, • program flowcharts, • system flowcharts, • hardware and software requirements, • file structures, • list of variables, • validation routines; 	
b)	identify the components of user documentation for an information system e.g. <ul style="list-style-type: none"> • purpose and limitations, • hardware and software requirements, • how to use the system, 	

	<ul style="list-style-type: none"> • input and output formats, • sample runs, • error messages, • trouble-shooting guide). 	
8.6 Evaluation		
You should be able to:		I can do this
a)	explain the need for evaluating a new system in terms of the efficiency, ease of use, and appropriateness of the solution;	
b)	state the need for comparing the solution with the original task requirements;	
c)	state the need for identifying any limitations and necessary improvements to the system;	
d)	state the need for evaluating the users' responses to the results of testing the system.	

Practical Tests			
The curriculum content for the practical tests is set out in eight sections. The sections are as follows:			
			I have used this application
9	Communication		
10	Document Production		
11	Data Manipulation		
12	Integration		
13	Output Data		
14	Data Analysis		
15	Website Authoring		
16	Presentation Authoring		

Communication		
You should be able to use e-mail and the Internet to gather and communicate information.		
Assessment Objectives	Skills	
9 Communicate with other ICT users using e-mail and use the internet as an information source		I can use these skills
9a Receive and store a file using e-mail	Open message,	
9b Send a file using e-mail	New message, address, subject reply, forward, carbon copy, blind carbon copy,	
9c Send a file	attach file(s)	
9d Receive a file	Save attached file	

9e Locate information from a website	Search string	
9f Search for information	Simple search, Advanced (refined) search	
9g Download information	Download and save information as specified	

SECTION 10 Document Production		
You should be able to use word processing facilities to prepare documents.		
Assessment Objectives	Skills	I can use these skills
10. Enter, edit and format data from different sources and set text appearance and layout.		
10a Load data from an existing file	Locate file, identify file type, csv, txt, rtf	
10b Key in and edit text	Enter text, enter numbers Edit text <ul style="list-style-type: none"> • Highlight, • delete, • move, cut, copy, paste, • drag and drop 	
10c Import image from external source	Import clip art, import from a digital source, import from file, import from website	
	Move image, resize image, crop image, text wrap (around image, square, tight, above, below), maintain aspect ratio	
10d Include information downloaded from the Internet	<ul style="list-style-type: none"> • Text, • graphic image, • table, • chart 	
10e Set up a page format	(i) Page size <ul style="list-style-type: none"> • A4, A5, Letter (ii) Page orientation <ul style="list-style-type: none"> • Portrait, landscape 	

	(iii) Set margins <ul style="list-style-type: none"> • Top margin, bottom margin, • Left margin, right margin, • gutter 	
	(iv) Create/edit headers and footers <ul style="list-style-type: none"> • Headers, footers, • automatic file information, • automated page numbering, • text, • date, • position, consistency of position, • position left, right, centre, outside of pages, • align with page margins 	
	(v) Set columns <ul style="list-style-type: none"> • Number of columns, • column width, • spacing between columns 	
	(vi) Set breaks <ul style="list-style-type: none"> • Page breaks, • section breaks, column breaks, • inserted, deleted, • set breaks to avoid widows, • set breaks to avoid orphans 	
10f Format the text	(i) Set fonts <ul style="list-style-type: none"> • Font style, • font type (serif, sans-serif), • point size, increase, decrease, • use an • appropriate font for the task 	
	(ii) Use text emphasis <ul style="list-style-type: none"> • Select text, • bold, underline, italic, • highlight, • specified item/s only 	
	(iii) Format a list	

	<ul style="list-style-type: none"> • Bulleted list, • numbered list 	
	(iv) Insert/edit table <ul style="list-style-type: none"> • Specified number of rows and columns, • insert row/s, delete row/s, • insert column/s, delete column/s, • format cells / cell contents 	
10g Text alignment and spacing	(i) Set alignment <ul style="list-style-type: none"> • Left, centred, right, fully justified 	
	(ii) Line spacing <ul style="list-style-type: none"> • Single, 1.5 times, double, multiple, • consistent, between lines and between paragraphs, • consistent before and after headings 	
	(iii) Indent text <ul style="list-style-type: none"> • Indent text, • indent paragraph, • hanging indent 	
10h Proof read and correct errors	(i) Use spell-check facilities (ii) Proof-read and correct the document <ul style="list-style-type: none"> • accuracy, • consistent line spacing, • consistent character spacing, • repagination, • remove blank pages, check for <ul style="list-style-type: none"> • no widows/orphans, • no tables/lists split over pages, • specified orientation 	

SECTION 11 Data manipulation		
You should be able to use database and charting facilities manipulate data to solve problems and represent data graphically..		
Assessment Objectives	Skills	I can use these skills
11. Enter data from different sources, perform calculations, search for data, sort the data and produce a report from the data.		
11a Load data from existing files	(i) Load specified file <ul style="list-style-type: none"> • Locate file, open file, import file, • identify file type (.csv, .txt, .rtf) 	
	(ii) Define a database record structure and assign the following field/data types: <ul style="list-style-type: none"> • Text, • numeric, (integer, decimal, currency, percentage, date/time), • Boolean/logical (yes/no, true/false, 1/0). • Use meaningful field names 	
	(iii) Format fields <ul style="list-style-type: none"> • Identify field sub-types and formatting (e.g. specify currency used, or number of decimal places) 	
11b Enter data	<ul style="list-style-type: none"> • Enter text, • enter numbers, • enter date/time values, • enter Boolean data 	
11c Enter formulae	Use arithmetic operations / numeric functions to perform calculations <ul style="list-style-type: none"> • Calculated field, • run time calculation, • addition, subtraction, multiplication, division, • sum, average, maximum, minimum, count 	
11d Sort data	<ul style="list-style-type: none"> • Ascending, descending, • alphanumeric, numeric, • date 	

11e Select subsets of data	Use several criteria <ul style="list-style-type: none"> • numeric, text and Boolean operators: • AND, OR, NOT, LIKE, • >, <=, >=, <=, • Wildcards 	
11f Produce a report	(i) Display fields as specified <ul style="list-style-type: none"> • Data aligned as specified (left, centred, right) • displayed in specified format (percentage, currency, decimal, specified number of decimal places, integer), • hide data and labels, show hidden fields, • display calculations/formulae, • display data/labels in full 	
	(ii) Enter text <ul style="list-style-type: none"> • Report titles 	
	(iii) Layout <ul style="list-style-type: none"> • Header, • footer, • page layout, • label production 	
	(iv) Export a query or report <ul style="list-style-type: none"> • Export data into a common text format .csv, .txt, .rtf • export into graph/charting package 	
11g Produce a graph or chart	(i) Select only the specified data (ii) Label graph/chart with <ul style="list-style-type: none"> • Title, • legend, • segment labels, • segment values, percentages, • category axis labels, value axis labels, • set axis scale maximum, • set axis scale minimum 	

SECTION 12		
Integration		
You should be able to integrate data from different sources into a single document or report.		
Assessment Objectives	Skills	I can use these skills
12. Integrate data from several sources		
12a Combine text, image and numeric data	(i) Combine text and image <ul style="list-style-type: none"> • Import text, • import clip art, • import from a digital source, • import from a website, • cut, copy, paste. 	
	(ii) Combine text and database extract <ul style="list-style-type: none"> • Import text, • import from a database, • cut, copy, paste. 	
	(iii) Combine text and graph/chart <ul style="list-style-type: none"> • Import text, • import a graph/chart, • cut, copy, paste. 	

SECTION 13		
Output data		
You should be able to produce output in a specified format.		
Assessment Objectives	Skills	I can use these skills
13. Output data		
13a Save and print data/document	(i) Save and print the document <ul style="list-style-type: none"> • Draft document, final copy, • e-mail, • file attachment, • screen shots 	
	(ii) Save and print the object/data <ul style="list-style-type: none"> • Database report, • data table, • graph/chart 	
	(iii) Save specified data selection in a format suitable for importing into a text based document	
Section 14 Data Analysis		
You should be able to use a spreadsheet to create and test a data model, extracting and summarising data.		
Assessment Objectives	Skills	I can use these skills
14. Create a model, extract data, use display features and output data from the model.		
14a Create a data model	(i) Enter layout of model as specified <ul style="list-style-type: none"> • Cut, • copy, • paste, • drag and drop, • fill 	
	(ii) Enter text and numerical test data with 100% accuracy	

	(iii) Enter formula/e including: <ul style="list-style-type: none"> • add, • subtract, • multiply, • divide, • indices, • relative reference, • absolute • reference, • named cells, • named • ranges, • nested formulae 	
	(iv) Use function/s including: <ul style="list-style-type: none"> • Sum, • average, • maximum, • minimum, • integer, • rounding, • counting, • if, • lookup, • nested functions 	
14b Test the data model	Demonstrate that the model works by testing using appropriately selected test data	
14c Select subsets of data	Use several criteria using numeric, text and Boolean operators: <ul style="list-style-type: none"> • AND, OR, NOT, LIKE, • >, <,<=, >=, <=, • Wildcards, • string 	

14d Adjust display features	(i) Display data/labels <ul style="list-style-type: none"> • Select data, • bold, • underline, • italic, • highlight, • specified row/column/item/s only, • integer, • percentage, • decimal, • specified number of decimal places, • currency 	
	(ii) Adjust row/column/cell sizes so that all data/labels/formulae are visible <ul style="list-style-type: none"> • Display formulae/data, • adjust column width, • row height, • hide row/column 	
	(iii) Adjust page orientation <ul style="list-style-type: none"> • Portrait, • landscape, • fit to page 	
14e Save and print data	Save and print data <ul style="list-style-type: none"> • Formulae, • values, • extracts, • test data 	

SECTION 15 Website Authoring		
You should be able to create a structured website with style sheets, tables and hyperlinks. You should have a working knowledge of html.		
Assessment Objectives	Skills	I can use these skills
15 Create webpage structures using external stylesheets, tables, images and output the webpage/s.		
15a Use stylesheets	(i) Create an external stylesheet e.g. <code><linkrel="stylesheet" type="text/css" href=stylesheetname.css"</code>	
	(ii) Create styles for common tags e.g. h1, h2, h3, p, li	
	(iii) Specify font appearance e.g. h1 { color: #FF0000; font-family: arial; text-align: center; font-size: 48pt; font-weight: bold; }	
	(iv) Apply tags e.g. <meta name="keywords" content ="text string, text string">	
15b Create webpage/s	(i) Create webpage/s Homepage, other pages, <ul style="list-style-type: none"> • Menu options, • text hyperlink, • graphics hyperlink, • foreground colour, • background colour, • text colour 	

	(ii) Apply menu options to pages <ul style="list-style-type: none"> • Text hyperlink, • graphics hyperlink 	
15c Create links	(i) Create links <ul style="list-style-type: none"> • Links to the same page (e.g. top), • anchors, • links to other pages e.g. <code>linkname </code>, • external links e.g. <code>linkname</code> • web addressing with correct URL 	
	(ii) Open in a specified location <ul style="list-style-type: none"> • Same window, • new window, • named as specified e.g. <code> textusedforlink</code> 	
15d Use tables	(i) Insert table <ul style="list-style-type: none"> • Table, • table header <code><th></code>, • table row <code><tr></code>, • table data <code><td></code>, • cellpadding, cellspacing, e.g. <code><table cellpadding="6" cellspacing="10"></code> 	
	(ii) Specify borders <ul style="list-style-type: none"> • Use of tables with visible or invisible borders, • set border thickness e.g. <code><table border="4"></code> 	

	(iii) Merge cells <ul style="list-style-type: none"> • Use merged cells within rows e.g. <td colspan = "2">, • use merged cells within columns e.g. <th rowspan = "3"> 	
15e Insert image	(i) Insert image <ul style="list-style-type: none"> • Insert image e.g. 	
	(ii) Place images relative to text <ul style="list-style-type: none"> • Use tables to place images, • Align cell contents left, right, centre 	
15f Alter image	(i) Use tags to adjust <ul style="list-style-type: none"> • image size and alignment • resize and position on the page e.g. width="500" height="300" valign="top" align="left" 	
	(ii) Use software to <ul style="list-style-type: none"> • Resize image/adjust colour depth • Resize/resample, .gif, .jpg, .png, • screen shot evidence, • maintain aspect ratio, • distort as specified 	
15g Save and print web pages	Save and print web pages <ul style="list-style-type: none"> • In browser, • in HTML format, • screen shots 	

SECTION 16		
Presentation Authoring		
You should be able to create and control an interactive presentation.		
Assessment Objectives	Skills	I can use these skills
16. Create, control and output information from a presentation		
16a Set up presentation	Create/edit master slide Placing <ul style="list-style-type: none"> • images/text/logos, • slide footers, • automated slide numbering, • font styles, • heading styles, • colour scheme 	
16b Create presentation pages	(i) Create the required number of presentation pages with information specified Areas for <ul style="list-style-type: none"> • headings, • subheadings, • bullets, • images, • charts; • colours, • text boxes, • presenter notes, • audience notes 	

	(ii) Insert text <ul style="list-style-type: none"> • Headings, • subheading, • bulleted list, • font styles, • font types (serif, sans serif), • point sizes, • text colour (selected from presentation colour scheme), • text alignment, • enhancements (bold, italic, underscore) 	
	(iii) Ensure consistency within the presentation Consistently applied <ul style="list-style-type: none"> • font styles, • point sizes and • colour schemes 	
16c Use graphical information	(i) Image inserted <ul style="list-style-type: none"> • Resize, • position, • crop, • copy, • contrast, • brightness 	
	(ii) Create or insert chart Create chart within the package or import from spreadsheet, <ul style="list-style-type: none"> • from contiguous or non contiguous data, • title, • legend, • segment labels, • segment values, • percentages, • category axis labels, • value axis labels, • scales 	

	(iii) Insert other features eg <ul style="list-style-type: none"> • Symbols, • lines, • arrows, • call out boxes 	
16d Use transitions	Automate the transition between pages <ul style="list-style-type: none"> • make consistent between slides, • use a range of features 	
16e Use animation facilities	Add animation to <ul style="list-style-type: none"> • Text, • images, 	
16f Save and print presentation	(i) Save and print the presentation <ul style="list-style-type: none"> • File compression (zip files) • Floppy disk, • presenter notes, • audience notes (handouts) 	
	(ii) Capture elements of the Presentation. Use screen shots to show features like <ul style="list-style-type: none"> • animation/ • transition/ • builds 	

